

Sub
5
What is claimed is:

1. A thin film transistor panel comprising:

a gate line with a gate electrode on a substrate;

a gate insulating layer on the gate line;

a semiconductor layer on the gate insulating layer;

a conductive pattern layer with source and drain electrodes spaced apart on the semiconductor layer, the conductive pattern layer comprising a first molybdenum layer, an Ag-Al alloy layer on the first molybdenum layer and a second molybdenum layer on the Ag-Al alloy layer;

10 a passivation layer on the semiconductor layer and the conductive pattern layer, the passivation layer having a plurality of contact holes; and

15 a plurality of pixel electrodes on the passivation layer, each of the pixel electrodes extending into one of the contact holes to contact the molybdenum layer.

2. The thin film transistor panel as claimed in claim 1, wherein the gate line comprises an Ag-Al alloy layer on the substrate and a molybdenum layer on the Ag-Al alloy layer.

3. The thin film transistor panel as claimed in claim 1, wherein the Ag-Al alloy layer contains about 1 to about 50 at% of silver.

4. The thin film transistor panel as claimed in claim 1, wherein the Ag-Al alloy layer contains about 5 to about 10 at% of silver.

20 5. The thin film transistor panel as claimed in claim 1, wherein the Ag-Al alloy layer contains about 10 at% of silver.

Sub
6. A liquid crystal display, comprising:

a top plate comprising a transparent electrode;

a bottom plate comprising reflective electrodes of Ag-Al alloy; and

25 a liquid crystal layer sandwiched between the top plate and the bottom plate,

wherein an image is generated by the liquid crystal display when ambient light is incident to the surface of the top plate.

7. The liquid crystal display as claimed in claim 6, further comprising a light source behind the bottom plate wherein each of the reflective electrodes has at least one aperture defined therein such that an image is generated by the liquid crystal display when light from the light source passes through the apertures of the reflective electrodes.

5 8. The liquid crystal display as claimed in claim 7, wherein the bottom plate further comprises:

Sub A2
a plurality of parallel gate lines;

a plurality of parallel data lines formed perpendicular to the gate lines, the gate lines and the data lines being arranged to form a matrix of pixel regions with each of the pixel regions bounded by two adjacent gate lines and two adjacent data lines; and

10 a plurality of thin film transistors formed at intersections between the gate lines and data lines,

wherein each of the reflective electrodes is respectively disposed in one of the pixel regions and functions as a pixel electrode.

11 9. The liquid crystal display as claimed in claim 6, wherein the Ag-Al alloy contains about 1 to about 50 at% of silver.

12 10. The liquid crystal display as claimed in claim 6, wherein the Ag-Al alloy contains about 5 to about 10 at% of silver.

13 11. The liquid crystal display as claimed in claim 6, wherein the reflective electrodes are formed from an annealed thin film of Ag-Al alloy.

14 12. The liquid crystal display as claimed in claim 11, wherein the reflective electrodes have a visible light reflectance greater than 95 %.

15 13. A sputtering target for forming a metal film, the sputtering target comprises an Ag-Al alloy.

25 14. The sputtering target as claimed in claim 13, wherein the Ag-Al alloy contains about 1 to about 50 at% of silver.

15 15. The sputtering target as claimed in claim 13, wherein the Ag-Al alloy contains about 5 to about 10 at% of silver.

16 16. The sputtering target as claimed in claim 13, wherein the Ag-Al alloy contains about 10 at% of silver.

30 17. A thin film transistor panel comprising

Sub
5
AS
fr d

a gate line with a gate electrode on a substrate, the gate line comprising an Ag-Al alloy layer on the substrate and a molybdenum layer on the Ag-Al alloy layer;

a gate insulating layer on the gate line;

a semiconductor layer on the gate insulating layer;

10 a conductive pattern layer with spaced apart source and drain electrodes on the semiconductor layer;

a passivation layer on the semiconductor layer and the conductive pattern layer, the passivation layer having a plurality of contact holes; and

15 a plurality of pixel electrodes on the passivation layer, each of the pixel electrodes extending into one of the contact holes and directly contacting the molybdenum layer.

18. The thin film transistor panel as claimed in claim 17, wherein the conductive pattern layer comprising a first molybdenum layer, an Ag-Al alloy layer on the first molybdenum layer and a second molybdenum layer on the Ag-Al alloy layer.

19. The thin film transistor panel as claimed in claim 17, wherein the Ag-Al alloy layer contains about 1 to about 50 at% of silver.

20. The thin film transistor panel as claimed in claim 17, wherein the Ag-Al alloy layer contains about 5 to about 10 at% of silver.

CATF001158073001

Add Al